U. S. FOREST SERVICE

RESEARCH NOTE NC-126

NORTH CENTRAL FOREST EXPERIMENT STATION, FOREST SERVICE—U.S. DEPARTMENT OF AGRICULTURE

Folwell Avenue, St. Paul, Minnesota 55101

LAKE STATES PULPWOOD PRODUCTION REACHES NEW HIGH IN 1970

ABSTRACT. — This 25th annual report shows that 1970 Lake States pulpwood production rose to over 4¼ million cords. Output increased 206,000 cords in Wisconsin, 104,000 cords in Michigan, and 32,000 cords in Minnesota. Birch pulpwood harvesting has increased rapidly since 1967.

OXFORD: 861.0(77):792. KEY WORDS: residue, receipts, roundwood, imports, birch.

Although national production of paper and paperboard fell to 90 percent of capacity in 1970, Lake States pulpwood production rose slightly above the 1966 peak. Some Lake States pulpwood inventory buildup probably occurred during 1970.

PRODUCTION

Lake States loggers and primary wood-using mills produced over 4¼ million cords of pulpwood (roundwood and mill residue) in 1970 (table 1). Compared to 1969, production rose 14 percent in Wisconsin, 8 percent in Michigan, and 3 percent in Minnesota. Wisconsin exceeded the previous high by 120 thousand cords. Minnesota also had a record output, but Michigan's was off 10 percent from the all-time high of 1966.

Roundwood harvesting (including chips from roundwood) increased 281 thousand cords in the Lake States and was second only to the 1966 harvest. Roundwood material constituted 92 percent of the total pulpwood output; mill residue, such as chips, slabs, and veneer cores, made up the remainder. Pine, birch, and miscellaneous hardwoods were each up more than 50,000 cords from 1969. All reported species shared in the larger pulpwood cut.

Technological advances in pulping birch have greatly increased the use of this species since 1967. This trend is important because large volumes of paper birch are available in the Lake States and current prospects for increased marketing are poor for other products.

Sales of Lake States mill residue to pulpmills in 1970 were 61,000 cords higher than in 1969. About two-thirds of the increase was hardwood residue.

MILL RECEIPTS

Lake States mill receipts were up more than 300 thousand cords from 1969, second only to the 1966 receipts. Mill procurement rose 12 percent in Wisconsin and 4 percent in Michigan but dropped 2 percent in Minnesota. Lake States loggers furnished 91 percent of the volume, other States 5 percent, and Canada 4 percent (table 2). Several western States — South Dakota, Wyoming, Montana, Colorado, and Idaho — each supplied over 20,000 cords to Lake States mills. Two-thirds of the western wood was

Table 1. — *Production and imports of pulpwood, Lake States, 1970*
(In standard cords, unpeeled)

Species and destination	Production by states 1/				Imports			Total receipts
	Minnesota	Wisconsin	Michigan	Regional total	Other U.S. 2/	Canada	Total imports	
Aspen								
Minnesota	547,911	3,000	--	550,911	--	5,800	5,800	556,711
Wisconsin	51,041	766,051	265,167	1,082,259	--	5,949	5,949	1,088,208
Michigan	16	1,352	330,596	331,964	--	--	--	331,964
Exported 3/	1,244	310	155	1,709	--	--	--	--
Total	600,212	770,713	595,918	1,966,843	--	11,749	11,749	1,976,883
Balsam fir								
Minnesota	42,100	--	--	42,100	--	--	--	42,100
Wisconsin	2,480	68,653	40,255	111,388	--	--	--	111,388
Michigan	125	--	26,090	26,215	--	--	--	26,215
Exported 3/	14	--	231	245	--	--	--	--
Total	44,719	68,653	66,576	179,948	--	--	--	179,703
Birch								
Minnesota	30,900	--	--	30,900	--	--	--	30,900
Wisconsin	485	75,310	4,876	80,671	--	--	--	80,671
Michigan	--	--	27,845	27,845	--	--	--	27,845
Exported 3/	--	578	289	867	--	--	--	--
Total	31,385	75,888	33,010	140,283	--	--	--	139,416
Hemlock								
Wisconsin	--	52,670	65,457	118,127	--	--	--	118,127
Michigan	--	--	3,373	3,373	--	--	--	3,373
Total	--	52,670	68,830	121,500	--	--	--	121,500
Pine								
Minnesota	149,260	--	--	149,260	--	38,456	38,456	187,716
Wisconsin	71,195	259,249	87,651	418,095	80,322	--	80,322	498,417
Michigan	--	--	151,914	151,914	9	--	9	151,923
Exported 3/	729	--	--	729	--	--	--	--
Total	221,184	259,249	239,565	719,998	80,331	38,456	118,787	838,056
Spruce								
Minnesota	108,909	--	--	108,909	391	1,640	2,031	110,940
Wisconsin	51,734	16,324	30,206	98,264	--	109,331	109,331	207,595
Michigan	97	33	20,417	20,547	--	1,458	1,458	22,005
Exported 3/	20,299	--	480	20,779	--	--	--	--
Total	181,039	16,357	51,103	248,499	391	112,429	112,820	340,540
Tamarack								
Wisconsin	36,275	3,800	2,936	43,011	--	--	--	43,011
Total	36,275	3,800	2,936	43,011	--	--	--	43,011
Misc. hardwoods								
Minnesota	25,744	--	--	25,744	--	7,440	7,440	33,184
Wisconsin	772	292,021	40,107	332,900	--	--	--	332,900
Michigan	--	--	153,905	153,905	--	66	66	153,971
Exported 3/	--	3,700	2,006	5,706	--	--	--	--
Total	26,516	295,721	196,018	518,255	--	7,506	7,506	520,055
Total roundwood								
Minnesota	904,824	3,000	--	907,824	391	53,336	53,727	961,551
Wisconsin	213,982	1,534,078	536,655	2,284,715	80,322	115,280	195,602	2,480,317
Michigan	238	1,385	714,140	715,763	9	1,524	1,533	717,296
Exported 3/	22,286	4,588	3,161	30,035	--	--	--	--
Total	1,141,330	1,543,051	1,253,956	3,938,337	80,722	170,140	250,862	4,159,164
Residue, softwood								
Minnesota	11,697	--	--	11,697	--	10,092	10,092	21,789
Wisconsin	3,317	12,159	4,506	19,982	168,616	--	168,616	188,598
Michigan	--	6,829	3,902	10,731	--	--	--	10,731
Exported 3/	1,652	187	2,100	3,939	--	--	--	--
Total	16,666	19,175	10,508	46,349	168,616	10,092	178,708	221,118
Residue, hardwood								
Minnesota	64,174	8,089	--	72,263	954	1,350	2,304	74,567
Wisconsin	2,278	80,420	68,935	151,633	--	--	--	151,633
Michigan	--	1,364	66,074	67,438	9,747	--	9,747	77,185
Exported 3/	--	4,142	6,717	10,859	--	--	--	--
Total	66,452	94,015	141,726	302,193	10,701	1,350	12,051	303,385
All wood material								
Minnesota	980,695	11,089	--	991,784	1,345	64,778	66,123	1,057,907
Wisconsin	219,577	1,626,657	610,096	2,456,330	248,938	115,280	364,218	2,820,548
Michigan	238	9,578	784,116	793,932	9,756	1,524	11,280	805,212
Exported 3/	23,938	8,917	11,978	44,833	--	--	--	--
Total	1,224,448	1,656,241	1,406,190	4,286,879	260,039	181,582	441,621	4,683,667

1/ Vertical columns of figures under box heading "Production by States" present the amount of pulpwood cut in each State.

2/ Mostly western States.

3/ Pulpwood shipped to mills outside of region.

Table 2. — *Geographic origin and destination of pulpwood received by Lake States mills, 1970*

Species	Percent of pulpwood originating from:					Percent of pulpwood received by mills in:		
	Minn.	Wis.	Mich.	Canada	Other U.S.	Minn.	Wis.	Mich.
Aspen	30	39	30	1	--	28	55	17
Balsam fir	25	38	37	--	--	23	62	15
Birch	23	54	23	--	--	22	58	20
Hemlock	--	43	57	--	--	--	97	3
Pine	26	31	28	5	10	22	60	18
Spruce	47	5	15	33	*	33	61	6
Tamarack	84	9	7	--	--	--	100	--
Misc. hardwoods	5	56	38	1	--	6	64	30
Residues	16	21	27	2	34	18	65	17
All wood material	26	35	30	4	5	23	60	17
Previous year (1969)	27	33	30	4	6	25	57	18

*Less than 1/2 of 1 percent.

softwood chips produced from primary plant residue. More than half of the Canadian imports was spruce roundwood.

Receipts of plant residue for pulping have increased every year since 1959. They rose to more than half a million cords in 1970, 11 percent of the total pulpwood receipts.

1971

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☆ U.S. GOVERNMENT PRINTING OFFICE: 1971—760-230/21 Region No. 6